

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
)
John H. SANTHOFF et al.)
)
Serial No.: To be assigned)
)
Filed: November 21, 2003)
)
For: BRIDGED ULTRA-WIDEBAND)
COMMUNICATION METHOD)
AND APPARATUS)

San Diego, California
November 21, 2003

MAIL STOP PATENT APPLICATION
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

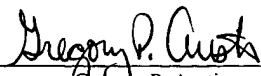
Dear Sir or Madam:

In accordance with 37 C.F.R. § 1.56, Applicants make the documents listed on the enclosed form PTO/SB/08 (submitted in duplicate) of record in the above-identified application. In accordance with 37 C.F.R. § 1.97, this statement is not to be construed as a representation that a search has been made, and is not a representation that the information cited is effective as prior art to the application or is material to patentability.

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this correspondence, and anything being referred to as enclosed herein, is being deposited with the United States Postal Service via Express Mail Post Office to Addressee Label No. EV292297129US, with sufficient postage in an envelope addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

Date: November 21, 2003

By: 
Gregory P. Austin

Copies of the foreign patent document and non-patent literature listed on the enclosed form PTO/SB/08 are enclosed.


Copies of the U.S. patents and U.S. patent application publications listed on the enclosed form PTO/SB/08 are not enclosed, in accordance with the waiver of the requirement of 37 C.F.R. § 1.98(a)(2)(i) for submitting a copy of each cited U.S. patent and U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 that appears in the Official Gazette Notice dated August 5, 2003 and entitled "Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications Filed After June 30, 2003".

It is respectfully requested that the documents listed on the enclosed form PTO/SB/08 be (1) fully considered by the U.S. Patent and Trademark Office in the examination of the above-identified application; and (2) printed on any patent which may issue on this application. It is also respectfully requested that a copy of the enclosed form PTO/SB/08, as considered and initialed by the Examiner, be returned to the undersigned with the next communication in accordance with M.P.E.P. § 609.

This Information Disclosure Statement is filed within three months of the filing date of the above-identified application, pursuant to 37 C.F.R. 1.97(b). Therefore, it is believed that no fee is required in connection with this submission. In the event that a fee is required, please charge our Deposit Account No. 50-2298, in the name of Luce, Forward, Hamilton & Scripps LLP.

Respectfully submitted,

11.21.03
Date



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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	To be assigned
				Filing Date	November 21, 2003
				First Named Inventor	John H. SANTHOFF et al.
				Art Unit	To be assigned
				Examiner Name	To be assigned
				Attorney Docket Number	30287-15
Sheet	1	of	4		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. 1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US- 3,678,204	07/18/1972	HARMUTH	
		US- 3,728,632	04/17/1973	ROSS	
		US- 4,447,747	05/08/1984	LAPOTIN	
		US- 4,641,317	02/03/1987	FULLERTON	
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		US- 5,115,409	05/19/1992	STEEP	
		US- 5,146,616	09/08/1992	TANG ET AL.	
		US- 5,157,559	10/20/1992	GLEASON ET AL.	
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		US- 5,635,863	06/03/1997	PRICE, JR.	
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		US- 5,714,954	02/03/1998	CHUNG ET AL.	
		US- 5,768,700	06/16/1998	KARDONTCHIK	

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Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO

(use as many sheets as necessary)

Sheet 2 of 4

Application Number	To be assigned
Filing Date	November 21, 2003
First Named Inventor	John H. SANTHOFF et al.
Art Unit	To be assigned
Examiner Name	To be assigned
Attorney Docket Number	30287-15

Examiner Initials ¹	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US- 5,847,623	12/08/1998	HADJICHRISTOS	
		US- 5,872,446	02/16/1999	CRANFORD, JR. ET AL.	
		US- 5,900,747	05/04/1999	BRAUNS	
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		US- 6,026,125	02/15/2000	LARRICK, JR. ET AL.	
		US- 6,031,862	02/29/2000	FULLERTON ET AL.	
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		US- 6,580,902 B1	06/17/2003	SORRELLS ET AL.	
		US- 2001/0019313A1	09/02/2001	TAKAHASHI ET AL.	

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Date	Considered
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1 Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	To be assigned
		Filing Date	November 21, 2003
		First Named Inventor	John H. SANTHOFF et al.
		Art Unit	To be assigned
		Examiner Name	To be assigned
Sheet 3 of 4	Attorney Docket Number	30287-15	

U.S. PATENT DOCUMENTS					
Examiner Initials [*]	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US- 2003/0048212A1	03/13/2003	Libove et al.	
		US- 2003/0161382 A1	08/28/2003	Hershey et al.	
		US- 5,793,413	08/11/1998	Hylton et al.	
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FOREIGN PATENT DOCUMENTS						
Examiner Initials [*]	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				

Examiner Signature	Date Considered
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		Filing Date	November 21, 2003
		First Named Inventor	John H. SANTHOFF et al.
		Group Art Unit	To be assigned
		Examiner Name	To be assigned
		Attorney Docket Number	30287-15
Sheet	4	of	4

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		FERNANDO RAMIREZ-MIRELES, "On Performance of Ultra Wideband Signals in Gaussian Noise and Dense Multipath," Paper 99C265, Accepted for Publication in the IEEE Transactions on Vehicular Technology, Pages 1-9.	
		FERNANDO RAMIREZ-MIRELES et al., "N-Orthogonal Time-Shift-Modulated Codes for Impulse Radio," Communication Sciences Institute, Department of Electrical Engineering-Systems, University of Southern California, Los Angeles, CA 90089-2565 USA, Pages 1-4.	
		HENNING F. HARMUTH, "Frequency-Sharing and Spread-Spectrum Transmission with Large Relative Bandwidth," IEEE Transactions on Electromagnetic Compatibility, Vol. EMC-20, No. 1, February 1978, Pages 232-239.	
		HENNING F. HARMUTH, "Applications of Walsh functions in communications," IEEE Spectrum, November 1969, Pages 82-91.	
		AETHER WIRE & LOCATION, INC., ROBERT FLEMING et al., "Integrated, Low-Power, Ultra-Wideband Tranceivers for Distributed Position Location and Communication," Technical Abstracts of Proposal to Defense Advanced Research Projects Agency (DARPA), Part I - Technical Proposal, 1998, Pages 1-52.	
		AETHER WIRE & LOCATION, INC., ROBERT FLEMING et al., "Low-Power, Miniature, Distributed Position Location and Communication Devices Using Ultra-Wideband, Nonsinusoidal Communication Technology," Semi-Annual Technical Report Prepared for: ARPA/FBI, July 1995, Pages 1-40.	

Examiner Signature		Date Considered	
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